## AsMA Resolution on Helicopter Flight Safety – Prevention of Controlled Flight into Terrain and Mid-Air Collision with Helicopter Terrain Awareness Systems and Traffic Awareness Systems

**Title of Resolution:** Helicopter Flight Safety, prevention of controlled flight into terrain and mid-air collision with Helicopter Terrain Awareness Systems and Traffic Awareness Systems.

**Author:** Pete Mapes

Whereas, the two leading causes of deaths in both civil and military helicopters world-wide are controlled flight into terrain (CFIT) and mid-air collisions; and

Whereas, aviation insurers have brought substantial pressure on operators to equip helicopters with the  $\underline{\underline{H}}$ elicopter  $\underline{\underline{T}}$ errain  $\underline{\underline{A}}$ wareness  $\underline{\underline{W}}$ arning  $\underline{\underline{S}}$ ystem (HTAWS) and the  $\underline{\underline{T}}$ raffic  $\underline{\underline{A}}$ wareness  $\underline{\underline{S}}$ ystem (TAS) for the purpose of preventing CFIT and mid-air collisions respectively;

Whereas, the US Federal Aviation Administration (FAA) has required operators conducting air ambulance operations to equip helicopters with HTAWS certified under Technical Standard Order (TSO) C194 for the prevention of CFIT;

**Whereas**, the US FAA has instituted a Next Generation Airspace Plan reliant, to a large extent, on the capability to perform stand-alone GPS instrument navigation in accordance with the capability specified by FAA TSO C146 (a- d) and conduct localizer precision vertical guidance (LPV) instrument approaches;

Whereas, most HTAWS capability is bundled with TSO C146 GPS capability;

Whereas, the 2011 National Defense Authorization Act proscribed the purchase of 'non-M-code' GPS equipment by the US DoD after 1 Jan 2017 and 'M-coded' GPS equipment is not compatible with FAA TSO C146, not capable of permitting LPV instrument approaches, and not bundled with HTAWS and TAS capability.

**Therefore, Be It Resolved** that all commercial and military helicopters operating in airspace requiring improved Required Navigational Performance (RNP) (such as US FAA Next Gen) shall be equipped with GPS equipment capable of maintaining RNP and of conducting LPV instrument approaches; **and** 

**Therefore, Be It Resolved** that all commercial and military helicopters shall be equipped with HTAWS for CFIT prevention and TAS for mid-air collision protection.